

The Applicators are manufactured from high quality stainless steel, precision machined, individually calibrated and finishes to meet the quality requirements of the coatings industry.

They provide perfect film drawdowns and guarantee the most reliable sample preparation, essential for all testing purposes. Suitable for application on Hiding Power Charts or any sufficiently rigid support presenting flat and smooth surface, they can be used on glass or flat metal panels.

A range of ten applicator formats are available from single gap sizes to 8 different gap sizes, additionally there are two adjustable gap versions, they can either be used with Impression Beds and drawn by hand or with the Automatic Film Applicators.

## Single Gap Versions

### Bird Applicators

A compact, easy to clean and handy mono-gap unit for intensive daily operations. The prismatic shape accommodates a wide variety of materials without applying excessive shear. Available in 2 film width as standard: 50 or 75mm.

Product ref:	Description
SH1100/50	Bird Applicator - 50mm film width, gap size to 200µm
SH1100/75	Bird Applicator - 75mm film width, gap size to 200µm
SH1100/A	Bird Applicator - 50mm film width, gap size to 201-2000µm

Please specify gap size when ordering.  
Other width and gap sizes available upon request.



### Bar Applicators

Similar to the Bird applicator, this version is fitted with 2 (removable) guides and can be used with 100mm wide test panels. For reliable repetitive drawdowns. Standard film width 90mm.

Product ref:	Description
SH1101/25	Bar Applicator - 90mm film width, 25µm gap size
SH1101/50	Bar Applicator - 90mm film width, 50µm gap size
SH1101/75	Bar Applicator - 90mm film width, 75µm gap size
SH1101/100	Bar Applicator - 90mm film width, 100µm gap size
SH1101/150	Bar Applicator - 90mm film width, 150µm gap size
SH1101/200	Bar Applicator - 90mm film width, 200µm gap size
SH1101/250	Bar Applicator - 90mm film width, 250µm gap size
SH1101/A	Bar Applicator - Other film width, other gap size

Please specify film width and gap size when ordering.



# Physical Testing: Application of Films: **Film Applicators**

## Two Gap Versions

### Cube Applicators

This small applicator is available with 16 or 45mm film width (overall width respectively 25 and 50mm). It has 2 gap sizes, machined into each application face. Ideal for application of parallel film stripes.

Product ref:	Description
SH1103	Cube Applicator - 25mm, 37/75µm
SH1103/A	Cube Applicator - 25mm, special sizes*
SH1104/1	Cube Applicator - 50mm, 50/100µm
SH1104/2	Cube Applicator - 50mm, 150/200µm
SH1104/A*	Cube Applicator - 50mm, special sizes*

\*Please specify gap size when ordering.



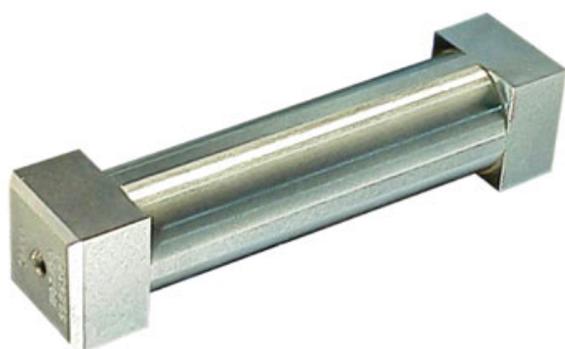
## Four Gap Versions

### Four Sided Applicators

A flexible and easy to use applicator, combining 4 gaps sizes in one unit. The cylindrical shape provides excellent results particularly on firm substrates and smooth surfaces. By simply rotating through 90°, the next gap size is placed onto the test surface.

Product ref:	Description
SH1107/60/1	4 sided Applicator - 60mm film width, 30-60-90-120µm gap sizes
SH1107/60/2	4 sided Applicator - 60mm film width, 50-100-150-200µm gap sizes
SH1107/60/A	4 sided Applicator - 60mm film width, 300µm gap sizes
SH1107/80/1	4 sided Applicator - 80mm film width, 30-60-90-120µm gap sizes
SH1107/80/2	4 sided Applicator - 80mm film width, 50-100-150-200µm gap sizes
SH1107/80/A	4 sided Applicator - 80mm film width, 300µm gap sizes
SH1107/1	4 sided Applicator - Other widths and gap sizes

Please specify gap size when ordering.

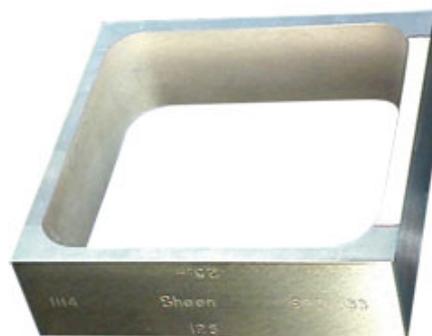


## Eight Gap Version

### Multifilm Applicator

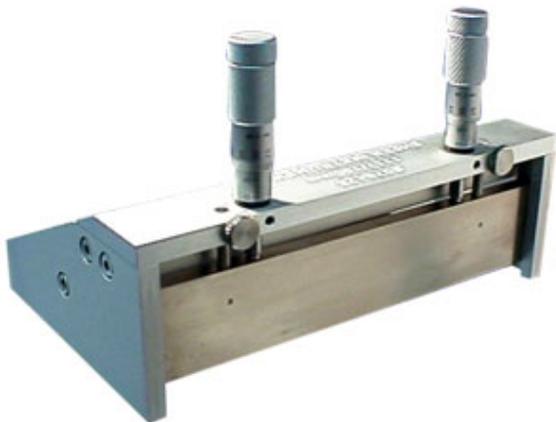
This versatile applicator offers in one unit 8 gap sizes: 25-50- 75-100- 125-150-175-200µm and 76mm film width. Simply position the applicator with the selected film thickness, put the sample in the centre, and apply as usual.

Product ref:	Description
SH1114	Multifilm Applicator - 8 gap sizes
SH1114/A	Multifilm Applicator - gap sizes 10-2000µm. (Please specify)



# Physical Testing: Application of Films: **Film Applicators**

## Adjustable Gap Versions



### Micrometer Adjustable Applicators

This versatile applicator offers in one unit 8 gap sizes: 25-50- 75-100-125-150-175-200µm and 76mm film width. Simply position the applicator with the selected film thickness, put the sample in the centre, and apply as usual.

Product ref:	Description
SH1117/100	Micrometer Adjustable Applicator - 100mm wide
SH1117/150	Micrometer Adjustable Applicator - 150mm wide
SH1117/200	Micrometer Adjustable Applicator - 200mm wide
SH1117/250	Micrometer Adjustable Applicator - 250mm wide
SH1117/300	Micrometer Adjustable Applicator - 300mm wide
SH1117/A	Micrometer Adjustable Applicator - Special sizes

Please specify gap size when ordering.

## Adjustable Film Applicators

This rugged applicator is fitted with a bevelled blade, adjustable by means of 2 knurled screws, from 0 - 6000 microns. The reduced shear effect provides close to gap initial wet film thickness. Standard film width 76mm. Supplied with a set of shims with a combined thickness of 3800 µm (Consisting 10 shims: 0,05, 0,1, 0,15, 0,2, 0,3, 0,4, 0,5, 0,6, 0,7, 0,8 thick).

Product ref:	Description
SH1102	Adjustable Film Applicator including shims



# Physical Testing: Application of Films: **Film Applicators**



## **Sag Index Applicators**

This applicator is specially designed for sag resistance evaluation. Within a film width of 90 cm, 10 gaps are machined with progressive thickness in increments of 25µm, providing parallel coatings tracks on the sample. The test panel is held vertically with the thickest at the bottom, after application. The sag index can be determined by the first track which does not sag onto the next track below. The step interval of each track indicates a sag of 25%.

Product ref:	Description
SH1108/275	Sag Index Applicator - Size 50-275µm
SH1108/475	Sag Index Applicator - Size 250-475µm
SH1108/675	Sag Index Applicator - Size 450-675µm
SH1108/A	Sag Index Applicator – Special sizes

## **Sagging and Levelling Tester**

This applicator allows both sag and levelling evaluations. Sag test can be performed same as with 1108 above, but with gaps from 75 to 300µm. Levelling test is carried out by applying 5 pair of coating stripes with increased thickness of 100-200-300-500-1000µm. After drying, the coating is deemed to show good levelling if the gap between the film is very small.

Product ref:	Description
SH1118	Sagging and leveling Tester
SH1118/A	Sagging and leveling Tester - custom specification. (10 gaps for sagging and 5 pairs for levelling)



## **Impression Beds**

The Impression Beds offer an easy method to draw a film onto a substrate, they are supplied with a clip to hold the sample securely on a flat rubber base.

Two formats are available, 110 wide x 180mm long and 220 wide x 340mm long.

Please contact us on +44 (0)208 783 4321 for more information.

Product ref:	Description
SH1120/18/IMP	Impression Bed small - Bed size 11 x 18cm
SH1120/25/IMP	Impression Bed large - Bed size 22 x 34cm

# Physical Testing: Application of Films: **Film Applicators**

## **Wire Bar Coaters**

These wired bars are ideal for application of paints, inks, adhesives, floor polishes and similar coatings onto flexible materials such as paper, test charts, textiles, leather, floor tiles etc.

They are particularly useful for the application of a wide coating film (up to 300 mm) or two or more samples to be drawn simultaneously.

Each turn of wire is directly in contact with the adjacent turn. The coating film forms the groove between each of the turns.



- The wire Bars can either be used manually with the Impression Bed specified below or attached to the Automatic Film Applicators (detailed above)
- Three film widths are available, (180, 250, 320 mm,) and wet film gaps, see the range in the table below.
- Alternative gap sizes can be supplied in accordance with the customer's requirements.

Product ref:	Description
SH1120/18/10...200*	Wire Bar Coater - 18cm film width, wet film 10-16-26-36-50-76-100-128-150-200µm options
SH1120/18/A	Wire Bar Coater - 18cm film width, special sizes
SH1120/25/10...200*	Wire Bar Coater - 25cm film width, wet film 10-16-26-36-50-76-100-128-150-200µm options
SH1120/25/A	Wire Bar Coater - 25cm film width, special sizes
SH1140/32/10...200*	Wire Bar Coater - 32cm film width, wet film 10-16-26-36-50-76-100-128-150-200µm options
SH1140/32/A	Wire Bar Coater - 32cm film width, special sizes

\*Please specify wet film when ordering and specify the relevant product reference number e.g. **SH1120/18/36**

## **International Standards**

The Bar Applicator can be used in accordance with the standards below.

ASTM D 823 Practice E

ASTM D2805 (SH1117/150 Micrometer Adjustable Bar Applicator is suitable)

ASTM D823 Practice E ISO 6504 (Applicators, gaps 40 – 150 µm)

ASTM D 3022 (Colour & Strength of Pigments) 75 film width, 200 micron gap Applicator refers

ASTM D 2243 (Freeze Thaw Resistance of Water-borne coatings) suggest 75 mm wide 180 microns gap Applicator

ASTM D 2805 (Hiding Power of Paints) 150 wide film width (SH1117/150 Adjustable Applicator refers) gap sizes 50, 75, 100, 125, 150, 175, 200 microns

Owing to continuous development, we reserve the right to introduce improvements and modify specifications without prior notice.

**Our sales team can be contacted on:  
info@sheeninstruments.com or +44 (0)208 783 4321**